

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION**

DYNAENERGETICS EUROPE GMBH, and	§	
DYNAENERGETICS US, INC.,	§	
	§	
Plaintiffs,	§	
	§	
v.	§	Civil Action No. 4:20-cv-02123
	§	
HUNTING TITAN, INC.,	§	
	§	
	§	JURY TRIAL DEMANDED
Defendant.	§	

**DEFENDANT HUNTING TITAN, INC.’S RULE 50(B)
MOTION FOR JUDGMENT AS A MATTER OF LAW**

Under Fed. R. Civ. P. 50(B), Defendant Hunting Titan, Inc. (“Hunting Titan”) renews its motion for entry of judgment as a matter of law (“JMOL”) on its affirmative defense that U.S. Patent No. 10,429,161 (“the ’161 Patent”) is invalid. Hunting Titan’s claim depends on a plain reading of the ’161 Patent and the prior art, whereas Plaintiffs’ arguments require this Court to add words to the patent and disregard entire sections of the prior art.

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I. NATURE AND STAGE OF THE PROCEEDINGS

This patent infringement lawsuit was originally filed on January 30, 2020 in the Western District of Texas alleging infringement of two patents, U.S. Patent Nos. 10,429,161 (“the ’161 Patent”) and 10,472,938 (“the ’938 Patent”) (“the Asserted Patents”). Dkt. 1. On September 19, 2022, this Court issued a Memorandum Opinion and Order granting summary judgment on infringement of all asserted claims of the ’938 Patent, leaving only the three asserted claims of the ’161 Patent for trial. Dkt. 196.

Trial commenced on January 9, 2023. Hunting Titan made oral Rule 50(a) JMOL motions after the close of Plaintiffs’ case-in-chief (on infringement) and after Plaintiffs’ rebuttal expert witness (on invalidity). The jury returned a verdict that Hunting Titan did not infringe the ’161 Patent and awarded no damages. However, the jury did not find the ’161 Patent invalid, and this Court entered judgment accordingly. Hunting Titan now files this Rule 50(b) JMOL motion to renew its earlier motion that this Court should find the ’161 Patent invalid as a matter of law.

II. STATEMENT OF THE ISSUES TO BE RULED ON

Whether this Court should grant JMOL in favor of Defendant’s affirmative defense of patent invalidity, given that all reasonable jurors would find that the ’161 Patent is both anticipated by the prior art and obvious in light of it.

III. SUMMARY OF THE ARGUMENT

Now that trial has concluded and the court has entered its judgment on the jury’s verdict, this Court should grant JMOL in favor of Hunting Titan on its affirmative defense of invalidity. Invalidity is ultimately a question of law for this Court to decide, and the evidence conclusively demonstrated that the asserted claims of the ’161 Patent are invalid.

All three asserted claims of the '161 Patent (claim 1, 4, and 20) were disclosed in 2012 by Black and in 1986 by Lendermon. Two limitations across the three asserted claims were disputed at trial for purposes of invalidity, but those limitations were clearly shown by the prior art:

- Black discloses the “directional locking fin” in claim 1 by showing a T-shaped protrusion that locks the first connector within the gun carrier. In arguing otherwise, Plaintiffs attempt to resurrect a claim construction argument they abandoned during the *Markman* hearing when they agreed with Hunting Titan that the term “directional locking fin” should have its plain and ordinary meaning. At trial, Plaintiffs re-argued the abandoned (and incorrect) construction to require a fin that locks the first connector *to* the gun carrier, not merely *within* it as required by the claim. Moreover, Lendermon discloses a similar protrusion and a key-in-groove system that any person of ordinary skill in the art (“POSITA”) would understand to teach a method of locking the first connector *to* the gun carrier, even if the claim is so construed.
- Black also discloses a “second connector configured for terminating the detonation cord in the perforation gun system” in claims 1 and 20 because it shows a detonation cord ending after the last shaped charge. In response to Defendant’s pre-trial arguments that this case should be limited to the H-1 perforating gun (and not either of the two H-1W guns) because Plaintiffs failed to chart those products as required under the local patent rules, Plaintiffs served a supplemental expert report alleging that the H-1W B series perforating guns infringe the '161 Patent. Plaintiffs do not dispute that the H-1W B series perforating guns use 20+ year-old shaped charges, yet they contend the prior art does not invalidate the claims (notwithstanding infringement by a prior art shaped charge case) only based on their expert’s refusal to apply the same claim construction

to both infringement as to invalidity. Even forgetting the shaped charge, the left side of Black's Figure 10 discloses the claim limitation. First, according to Dr. Rodgers, it shows the same ending of the detonation cord as found in the accused products (by tucking the cord into the charge tube and the detonation cord simply hanging loose in the tube). Second, according to Dr. Fleckenstein, Black's Figure 10 shows the same end of the detonation cord on both the left and the right side. And here too, Lendermon fills in any gap that was left by Black's disclosure.

The prior art renders the '161 Patent invalid, and this Court should grant JMOL.

IV. FACTS

The relevant facts for this Rule 50(a) Motion for JMOL will be found in the evidence this Court heard during the jury trial of this case. To briefly summarize, this is a patent case in which Dyna alleges that Hunting Titan infringed the '161 Patent through the sale of three H-1 perforating gun models, the H-1 Legacy, the H-1W A series, and the H-1W B series. The '161 Patent was issued on October 1, 2019, and Plaintiffs allege that Hunting Titan infringes claims 1, 4, and 20 of the '161 Patent.

Hunting Titan alleges the '161 Patent is invalid because it is anticipated by prior art and is obvious in light of the prior art. During trial, Dr. William Fleckenstein addressed the anticipation and obviousness arguments through his expert testimony. *See* Ex. B, Day 4 PM Tr. at 25:1-46:3. Though Plaintiffs offered contrary testimony from their expert witness Dr. John Rodgers, *see* Ex. C, Day 6 AM Tr. at 14:20-33:10, the prior art from Black and Lendermon speaks for itself and it speaks conclusively. The industry already knew about perforating guns with the limitations of the claims of the '161 Patent, so they were not truly innovative. Therefore, this Court must find that claims 1, 4, and 20 of the '161 Patent are invalid.

V. ARGUMENT

A. Legal Standard for JMOL

Rule 50(b) governs Hunting Titan’s renewed motion for judgment as a matter of law. Under Rule 50(a), “[i]f a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue, the court may: (A) resolve the issue against that party; and (B) grant a motion for judgment as a matter of law against the party on a claim or defense that, under the controlling law, can be maintained or defeated only with a favorable finding on that issue.” FED. R. CIV. P. 50(a). Rule 50(b) then allows the movant to renew the Rule 50(a) motion after the verdict. FED. R. CIV. P. 50(b).

Because the standard for JMOL is not unique to patent cases, Fifth Circuit law will govern this Court’s determination of this motion. *See DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1329 (Fed. Cir. 2009). Under Fifth Circuit and U.S. Supreme Court authority, “the standard for granting summary judgment ‘mirrors’ the standard for judgment as a matter of law, such that ‘the inquiry under each is the same.’” *Williams v. Hampton*, 797 F.3d 276, 282 (5th Cir. 2015) (quoting *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000)). Accordingly, JMOL is proper when reasonable jurors could not arrive at a contrary verdict—though it is important to remember that “a mere scintilla of evidence is insufficient to present a question for the jury.” *Hunter v. Knoll Rig & Equip. Mfg. Co., Ltd.*, 70 F.3d 803, 808 (5th Cir. 1995) (quoting *Boeing Co. v. Shipman*, 411 F.2d 365, 374 (5th Cir. 1969) (en banc)).

Hunting Titan has the burden of proving by clear and convincing evidence its affirmative defense that the ’161 Patent is invalid. *BASF Corp. v. SNF Holding Co.*, 955 F.3d 958, 963 (Fed. Cir. 2020). Whether a claim is invalid is a question of law to be ultimately decided by this Court, based on any underlying factual determinations that may be necessary. *See Genentech, Inc. v.*

Sandoz Inc., 55 F.4th 1368, 1376 (Fed. Cir. 2022). This Motion will demonstrate that no factual determinations were required, and this Court should enter judgment for Hunting Titan that the '161 Patent is invalid.

B. This Court Should Grant JMOL That The '161 Patent Is Invalid

Based on the evidence presented at trial, this Court should find as a matter of law that the '161 Patent is invalid. To the extent this decision depends on underlying fact determinations, no reasonable juror could have possibly concluded that Hunting Titan has failed to carry its burden of proving invalidity through anticipation and obviousness. The jury in this case erred on this point, and should have followed Dr. Fleckenstein's sensible application of what Black and Lendermon plainly teach.

1. Claims 1 and 20 of the '161 Patent are invalid because they were anticipated by the Black prior art reference.

First, this Court should grant JMOL that claims 1 and 20 of the '161 Patent are invalid because the disputed claims were anticipated by prior art. Anticipation is a question of fact. *Genentech, Inc. v. Hospira, Inc.* 946 F.3d 1333 (Fed. Cir. 2020). However, in this particular case, the evidence would compel all reasonable jurors to conclude that the '161 Patent was anticipated by the prior art, so this Court should grant JMOL.

The Federal Circuit has explained the standard for anticipation:

A reference is anticipatory under § 102(b) when it satisfies particular requirements. First, the reference must disclose each and every element of the claimed invention, whether it does so explicitly or inherently. While those elements must be arranged or combined in the same way as in the claim, the reference need not satisfy an *ipsissimis verbis* test. Second, the reference must enable one of ordinary skill in the art to make the invention without undue experimentation. As long as the reference discloses all of the claim limitations and enables the subject matter that falls within the scope of the claims at issue, the reference anticipates—no actual creation or reduction to practice is required. This is so despite the fact that the description provided in the anticipating reference might not otherwise entitle its author to a patent.

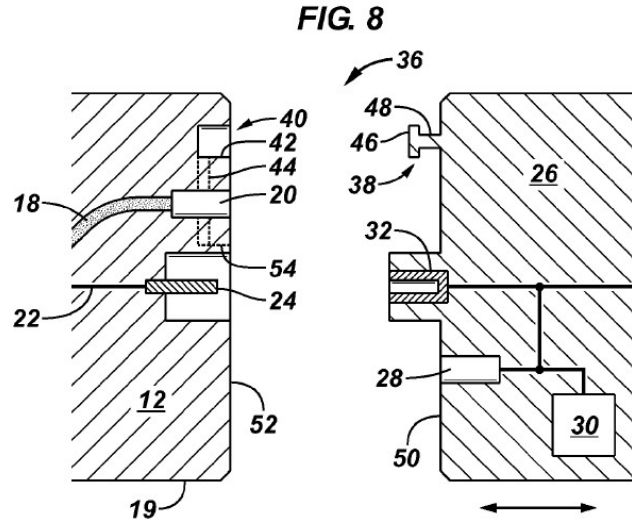
In re Gleave, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (citations and quotations omitted).

The trial evidence showed (and the parties stipulated) that the 2012 Black patent application (No. US 2012/0247771 A1) was prior art. *See* Dkt. 247-27, DX 313. As shown at trial, Black anticipates claims 1 & 20.

In his expert testimony, Dr. Fleckenstein walked this Court and the jury through the reasons why Black anticipates the '161 Patent. In fact, much of the analysis is undisputed; the parties agreed that Black disclosed the vast majority of the claim limitations in the '161 Patent. *See* Ex. B, Day 4 PM Tr. at 29:7-30:6; *see also id.* at 30:15-32:21 and 43:9-24 (discussing how each undisputed claim was disclosed in Black). However, Dr. Fleckenstein opined that Black disclosed the “directional locking fin” and the “second connector configured for the terminating of the detonator cord,” whereas Plaintiffs’ expert Dr. Rodgers disagreed. *See* Ex. B, Day 4 PM Tr. at 29:25-30:6. Dr. Fleckenstein’s explanations of these two disputed claims matched the plain words of Black and the '161 Patent, and support JMOL.

a. Directional locking fin.

In Figure 8, Black discloses a T-shaped protrusion (“Protrusion 38”) that fits into a groove (“Groove 40”) to lock the two structures together “like two pieces of a puzzle.” Ex. B, Day 4 PM Tr. at 33:17-34:4; *see, e.g., id.* at 36:23-37:25 (discussing “directional locking fin” for combination of Black and Lendermon).



See Dkt. 247-27, DX 313 at Fig. 8. This protrusion extends laterally from the structure and is used to lock it into place within the gun carrier, so it necessarily meets the definition of a “directional locking fin.”

The Plaintiffs’ argument depends on an erroneous reading of the ’161 Patent that they abandoned during the *Markman* hearing. Plaintiffs’ expert Dr. Rodgers interpreted the ’161 Patent as requiring the first connector to lock directly to the gun carrier itself and faulted Black for not teaching this requirement. Ex. B, Day 4 PM Tr. at 32:22-33:16. This is the exact same argument Plaintiffs tried to advance in their *Markman* briefing, see Dkt. 70 at 12-17, but Plaintiffs abandoned this construction during the *Markman* hearing by agreeing to a plain and ordinary meaning construction (seemingly because they knew their position was unreasonable). See Dkt. 86 at 5:8-6:7. Nonetheless, Dr. Rodgers testified at trial that that Black’s “directional locking fin” cannot meet that definition because it “doesn’t engage the [gun] carrier. It’s just there to connect the arming device to the loading tube.” Ex. C, Day 6 AM Tr. at 20:18-21:11.

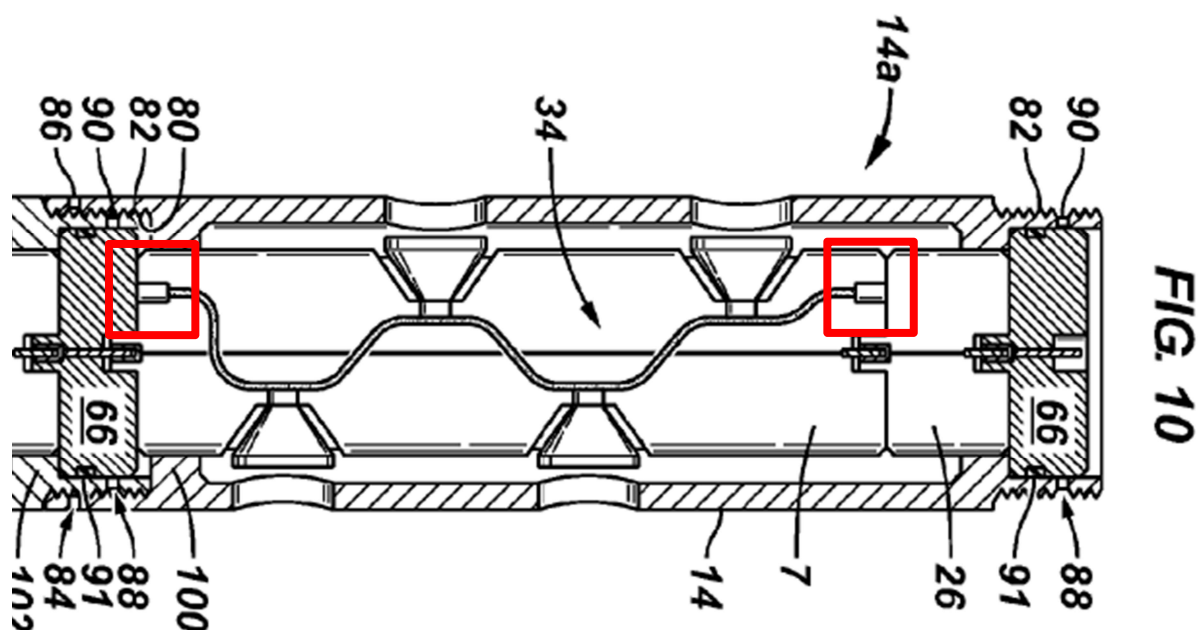
But as Dr. Fleckenstein explained, the ’161 Patent plainly and clearly only requires the first connector to be locked *within* the gun carrier. Ex. B, Day 4 PM Tr. at 32:22-33:8. This is self-evident from the claim itself. The “directional locking fin” does not have to attach the first

connector to the gun carrier itself; it merely has to lock the first connector *within* the gun carrier. *See* Dkt. 253-1, PTX 1 at Claim 1 (“at least one directional locking fin for locking the first connector within the gun carrier”). Dr. Rodgers only advances an abandoned and incorrect claim construction to avoid invalidity and his erroneous reading of the ’161 Patent cannot support the conclusion that Black fails to disclose the “directional locking fin.”

Protrusion 38 clearly is a “fin” that “locks” the structure within the gun carrier, so it discloses a “directional locking fin.” Black describes protrusion 38 as a “lock device” or “locking device,” *see* Ex. B, Day 4 PM Tr. at 33:17-22; *see also* Dkt. 247-27, DX 313 at p. 3—of course it locks the claimed “first connector” (which Dr. Rodgers does not dispute is disclosed within Black) *within* Black’s gun carrier, as required by the claim. Importantly, Dr. Rodgers admitted that DynaEnergetics *could have* claimed a directional locking fin to lock *to* the outer gun carrier, as DynaEnergetics has done in other patents, but they simply did not do so in the ’161 Patent. *See* Ex. C, Day 6 AM Tr. at 49:3-50:21; *compare* Dkt. 253-1, PTX 1, ’161 Patent at claim 1 (“at least one directional locking fin for locking the first connector within the gun carrier”) *with* Dkt. 247-51, DX 694, ’213 Patent at claim 18 (“at least one rib extending from the detonator holder, **wherein the rib engages an inner surface of the housing**”). Dr. Rodgers’ testimony that Black does not have the claimed “directional locking fin” is unsupported by the evidence and as a matter of law; Black anticipates the “directional locking fin” as claimed by the ’161 Patent.

b. Second connector configured for terminating the detonator cord.

The second disputed claim limitation, found in claims 1 and 20, requires a “second connector” that is “configured for terminating the detonator cord.” Dkt. 253-1, PTX 1 at Claim 1. Dr. Fleckenstein explained how Black discloses this requirement. Figure 10 of Black discloses a detonator cord “and it’s ending or terminating at both ends of the – the loading tube and with exactly the same structures on both ends.” Ex. B, Day 4 PM Tr. at 38:8-21.

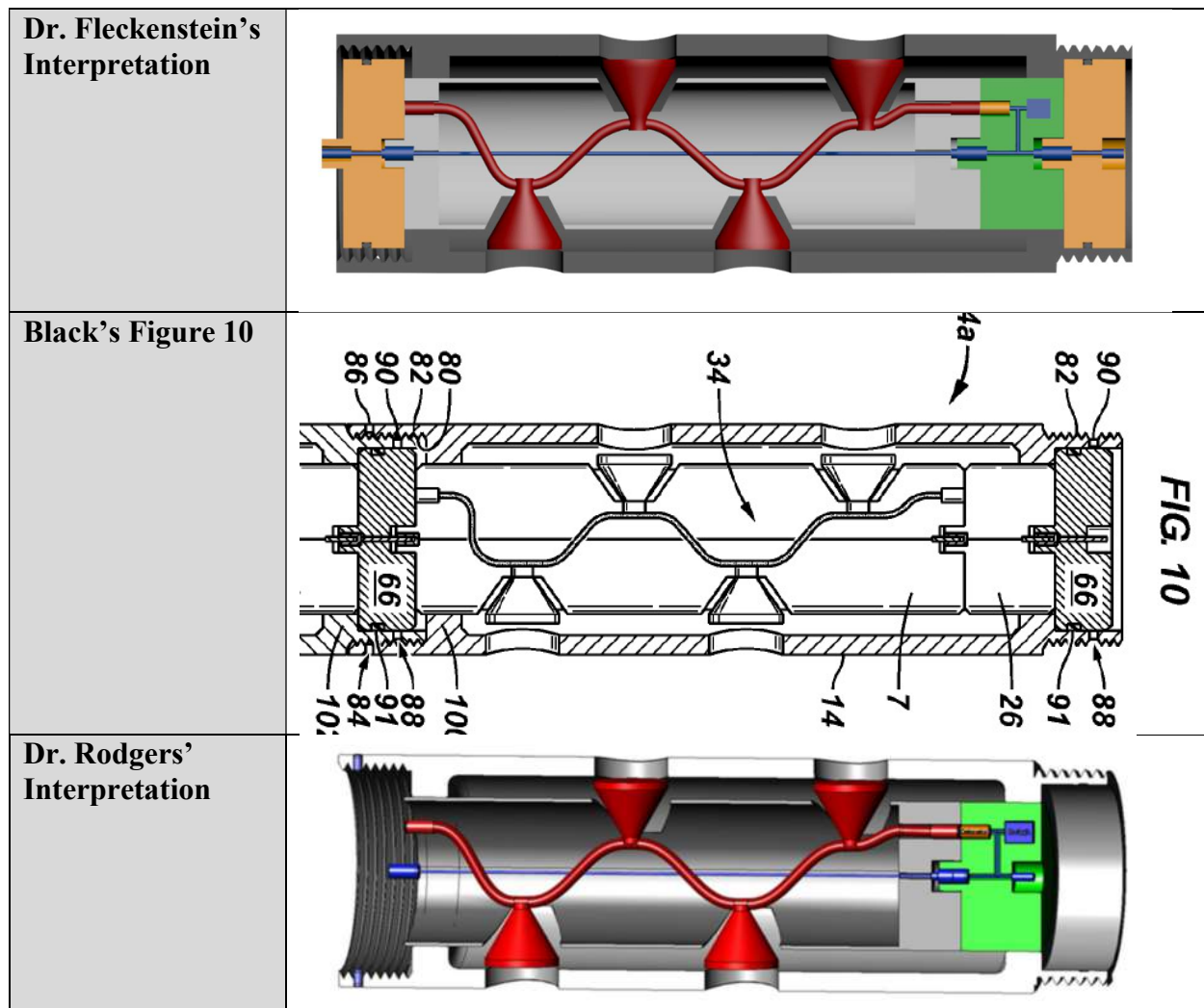


Dkt. 247-27, DX 313 at Fig. 10. As Dr. Fleckenstein explained, “you can see where there’s a groove or a slot that the detonator cord actually fits into, and that’s what actually mates the detonator cord to the detonator.” Ex. B, Day 4 PM Tr. at 39:1-6. The left side of Figure 10 discloses the disputed claim of the ’161 Patent.

Dr. Rodgers claimed that Black did not disclose the “second connector” limitation because he interpreted Black to have no explanation whatsoever for what happened to the detonator cord on the left side of Figure 10. *Id.* at 39:10-40:10. Tellingly, both experts, Dr. Rodgers and Dr. Fleckenstein, agree that the *right* side of the drawing discloses structure, but Dr. Rodgers unreasonably concludes that the *left* side (which has the same depiction in Figure 10) does not disclose the same structure as on the *right side* to a person of ordinary skill in the art. *Id.* at 40:23-41:8.

This led to some strange omissions in Dr. Rodgers’s testimony. First, Dr. Rodgers admitted that he relied on 40 year-old charge cases in the H-1W B series gun to show evidence of infringement. *See* Ex. A, Day 3 AM Tr. at 147:10-149:4. In fact, Dr. Rodgers admitted that the

same structure he accused of infringement was present in a prior art DynaEnergetics product from 2004 called DynaWell. *Id.* at 156:18-159:15 (“So the same structure that you’re pointing to on evidence of infringement on the right from my client’s gun is also found on the left in 2004 before the date of this patent. Isn’t that right? A. That’s right.”). Dr. Fleckenstein observed that in Dr. Rodgers’s demonstrative depiction of Black’s teachings, “the red detonator cord is just hanging out in space and that wouldn’t be reasonable at all.” Ex. B, Day 4 PM Tr. at 39:21-24. Dr. Rodgers’s illustration demonstrates Dr. Fleckenstein’s point because it so plainly differs from Black’s Exhibit 10:



See Ex. C, Day 6 AM Tr., at 19:5-20:6 (discussing Dr. Rodgers’ demonstrative). Moreover, Dr. Rodgers incorporated additional structures from Black in *other* parts of his illustration, but he chose to omit those same structures here, in order to make it seem as though Black did not disclose this element of the ’161 Patent. Ex. B, Day 4 PM Tr, at 39:21-40:10. This Court should rely on the actual text and drawings in Black, and not on Dr. Rodgers’s inaccurate depiction of its teachings.

Dr. Rodgers disagreed that the left side of Figure 10 teaches anything because he opined that in Black, “the invention was focused on the right-hand side, the arming device that you rotate to arm the tool.” Ex. C, Day 6 AM Tr. at 28:23-24. In his view, the structure on the left side must be ignored because that was actually the assembly from another perforating gun, and only “comes into play when you stack the guns to run them into the well.” *Id.* at 28:14-15. A second gun is “just outside the scope of the invention” and the left side is “just not covered in that patent.” *Id.* at 28:22, 29:1-2. Black renders this rationalization irrelevant because it shows the same structure for the end of the detonating cord on the left and the right of Figure 10. *See supra*; *see* Dkt. 247-27, DX 313 at Fig. 10. If Rodgers’ argument that Black focused on the right side of the drawing was relevant, then the right side would have *more* detail of the detonating cord than the left, not the same amount of detail.

Rodgers’ reading of Black cannot be credited by reasonable jurors. Black plainly discloses the detonator cord terminating after the second connector, as Figure 10 shows and as DynaEnergetics argued in its infringement case. *See* Dkt. 247-27, DX 313 at Fig. 10. Fact-finders cannot simply erase the left side of Figure 10, based on some vague assurance from Dr. Rodgers that the invention in Black was *really* “focused” on showing only what was on the *right* side. Ex. C, Day 6 AM Tr. at 28:23-24. The possibility that it terminates by connecting to another perforating gun in the series makes no difference; Black teaches the claim.

Moreover, Dr. Fleckenstein identified a critical inconsistency in Dr. Rodgers's opinions. Dr. Rodgers testified that a detonator cord extending past the final shaped charge infringed the '161 Patent, but when he viewed the *same* depiction of a detonator cord in Black, he opined that it did not meet the very same claim. *Id.* at 42:5-45:14 (discussing ways to terminate a detonator cord without meeting the claim limitation for purposes of invalidity). Dr. Rodgers cannot have one interpretation for infringement and another for invalidity; the law requires them to be consistent. *See* Ex. B, Day 4 PM Tr. at 42:12-43:8.

2. The three asserted claims of the '161 Patent are invalid because they were obvious in light of prior art.

This Court should also grant JMOL that the '161 Patent is invalid because its claims were obvious in light of prior art. "Whether a claim is invalid as obvious is a question of law, based on underlying factual determinations." *See Genentech, Inc.*, 55 F.4th at 1376. In this case, JMOL is appropriate because reasonable jurors must all agree that the claims were obvious. A patent is invalid if "the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains." 35 U.S.C. § 103. The Supreme Court has explained the framework for the obviousness inquiry:

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17-18 (1966); *see also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting *Graham*).

In this case, all reasonable jurors must agree that the Black and Lendermon prior art makes the three asserted claims of the '161 Patent obvious to a person of ordinary skill in the art. The Black prior art alone makes the disputed claims obvious, but when added to the even-older teachings of Lendermon from the 1980s, they prove as a matter of law that the disputed claims of the '161 Patent were obvious.

a. Directional locking fin.

Hunting Titan has already shown how Black discloses that protrusion 38 is a “directional locking fin” that interlocks with “groove 40.” Dr. Fleckenstein further explained that the Lendermon prior art (U.S. Patent Number 4,744,424) from 1986 provides additional information that a person of ordinary skill in the art would have known to use in conjunction with Black. Ex. B, Day 4 PM Tr. at 34:16-35:9. Specifically, Lendermon discloses the long-standing practice in the perforating gun industry to use a key and keyway to ensure proper orientation of a shaped charge with a scallop: an outwardly-directed key 25 and a keyway (“a complimentary inwardly facing longitudinal groove 26”). *Id.* at 35:22-36:13; *see also* Dkt. 247-28, DX 315 at 5:57-63. Both alone and in conjunction with Black, Lendermon shows that “when you’re engaging these two structures together, they fit together like two pieces of a puzzle. And when they lock together like that, just like pieces of the puzzle, that’s what actually locks together and prevents the movement inside of the gun carrier of the loading tube.” Ex. B, Day 4 PM Tr. at 35:24-36:4. Such key-and-groove systems were well-known back in 1986, and were certainly “a well-known concept in July 2013.” *Id.* at 36:5-9. A POSITA would be motivated to combine the outwardly directed key inside the gun carrier from Lendermon into Black; indeed, they are both Schlumberger gun systems and would be a very well-known and common method to ensure the shaped charges fired exactly outside the scallops. *Id.* at 36:5-38:7.

For his part, Dr. Rodgers argued that that a “key” like the structure disclosed in Lendermon and Black cannot ever be a “directional locking fin” because a “key” only locks the first connector from rotating within the carrier and does not prevent motion in the axial direction. Ex. C, Day 6 AM Tr. at 23:22-24:23. Again, the ’161 Patent only requires that the fin lock the first connector “within” the carrier; it does not require locking *to* the carrier *itself* or preventing only axial movement (as opposed to rotational movement). *See* Dkt. 253-1, PTX 1 at Claim 1. Here again, Dr. Rodgers’s argument finds absolutely no support in the claim or the evidence and the Court should find that as a matter of law the ’161 Patent is invalid as obvious. Further, Dr. Rodgers’ argument is inconsistent with his infringement testimony, in which he contended that a structure that did not lock rotationally or axially nevertheless infringed the ’161 Patent. *See supra*. Again, DynaEnergetics cannot interpret the claims one way for infringement and another for validity.

b. Second connector configured for terminating the detonator cord.

As for the second disputed claim limitation, Lendermon resolves any doubts about whether Black discloses the second connector limitation. Dr. Rodgers criticized Black for having no clear depiction of how the detonator cord is terminated on the left side of the drawing, but even if this were correct (and it is not), Lendermon fills that gap. Ex. B, Day 4 PM Tr. at 41:16-24. “[I]f you would combine Black and Lendermon, Lendermon is disclosing the – one of the oldest methods of actually attaching or securing a detonator cord to the back of a shaped charge, and that’s where you have got this little sot that you actually go ahead and put this detonator cord and then secure it against the back of that shaped charge, and so that’s what Lendermon shows even back in the mid ’80’s.” *Id.* This is the exact same charge case that Dr. Rodgers pointed to for infringement of the H-1W B series guns. *See, e.g.*, Ex. A, Day 3 AM Tr. at 147:10-149:4 (testifying that 40-year-old shaped charge case on H-1W B series perforating guns infringed the claims). In fact, it is the same structure that is also found on a prior art DynaEnergetics gun from 2004, the DynaWell gun.

Id. at 156:18-159:15; *id.* at 158:16-159:15 (“So the same structure that you’re pointing to on evidence of infringement on the right form my client’s gun is also found on the left in 2004 before the date of this patent. Isn’t that right? A. That’s right.”).

Because a person of ordinary skill in the art would know to combine the time-honored practices disclosed in Black and Lendermon to terminate the detonator cord at the back of the shaped charge, exactly how DynaEnergetics alleged the detonator cord is terminated for infringement, the three asserted claims must then be invalid as obvious over the prior art.

c. Additional evidence was excluded.

Moreover, this Court erred by excluding evidence that would have further supported the conclusion that the ’161 Patent was invalid. Hunting Titan tried to introduce evidence of Schlumberger’s “SafeJet” system because it showed the relevant state-of-the-art in perforating guns before the ’161 Patent application was filed. That evidence should have been admitted to bolster the conclusion that the ’161 Patent is invalid as obvious.

VI. CONCLUSION

Under Rule 50(b), this Court should grant JMOL in favor of Defendant’s affirmative defense that the ’161 Patent is invalid.

Dated: February 15, 2023

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on February 15, 2023, a true and correct copy of the foregoing document was filed with the Clerk of Court using the CM/ECF system, which will send notice of such filing via e-mail to all counsel of record.

/s/ Charles S. Baker

Charles S. Baker